The graphical depiction may optionally reflect a third-person view of the vehicle, such as reflecting a virtual or render camera positioned at an upward rear of the vehicle. In some embodiments, the graphical depiction may be presented in a street view of the map. In some embodiments, the graphical depiction may be presented on a representation of a road, optionally along with a name of the road and/or proximate roads. The user of the unified user interface may provide user input to zoom out of the map. For example, the user may use pinch-to-zoom techniques to cause a zooming out of the map. Since the graphical depiction of the vehicle is positioned in the map, the graphical depiction may be reduced in size as the map is zoomed-out. In this way, the user may view a larger map depicting a larger region about the vehicle. Additionally, the user may cause translation of the map information via user input. Example user input may include swiping along a particular directions which causes the map to adjust an area depicted. Additionally, the graphical depiction of the vehicle may be removed from the combined view if it is not included in the adjusted area. Optionally, the map may zoom out such that the combined view includes an area encompassed by an area including the graphical depiction of the vehicle (e.g., based on its location) and the translated-to area (e.g., the adjusted area).

[0057] Contextual information may be updated by the user based on the map. For example, the user may select a location on the map. In this example, the unified user interface may present a route which the vehicle may follow to reach the location. Thus, the unified user interface may present the route as extending from the graphical depiction of the vehicle to the location.

[0058] If the user places the vehicle into drive, the system or processor may update the unified user interface to present a larger view of the graphical depiction of the vehicle. Thus, the contextual information may be updated to reflect that the user is driving according to navigation information. For example, and as will be described below, the unified user interface may present an autonomous visualization including a driving view of the vehicle through a real-world environment. The driving view may reflect a rear raised view of the vehicle driving through the environment towards the location. For example, lane markings, other vehicles, and so on, may be rendered in the unified user interface. The unified user interface may additionally present turn-by-turn directions. As an example, a left-turn arrow may be included prior to the user being required to turn left on a street.

[0059] In this way, and in contrast to the example user interface described above, the graphical depiction of the vehicle may be combined with map information. Thus, in substantially real-time, the unified user interface may dynamically adjust presentation of the graphical depiction and/or map information. For example, the map be dynamically zoomed-in, zoomed-out, and so on.

[0060] The vehicle may optionally include cameras or sensors which may be used to determine locations of other vehicles, locations of lanes, off-ramps, on-ramps, stop signs, traffic lights, and so on in substantially real-time. During navigation, the unified user interface may therefore indicate that the user has to move over a certain number of lanes to make a turn, take an off-ramp, and so on.

[0061] In one embodiment the unified user interface may present an autonomous visualization of the obstacle being included in the off-ramp. Optionally, the obstacle may be highlighted or otherwise called out to ensure that the user notices the obstacle. In some embodiments, the unified user interface may update to present an updated navigation route which avoids the off-ramp.

[0062] While the description above focused on navigation, it should be understood that such obstacles may be presented in the unified user interface during normal driving of the vehicle. For example, the unified user interface may present a large graphical depiction of the vehicle when in park. If the user places the vehicle into drive, the contextual information may be updated to reflect the vehicle is being driven. The unified user interface may thus be updated to present an autonomous visualization reflecting a driving view of the vehicle. For example, the driving view may include a rear raised view of the vehicle traversing a street or off-road area. The driving view may additionally indicate lane markings, other vehicles, stop signs, streetlights, pedestrians, potholes, rocks, obstacles or hazards, and so on. Additionally, the unified user interface may include map information, such as street names, locations of stop signs or traffic lights, names of proximate businesses or locations, and so on. The user may similarly zoom out of the map, such as via touch input or verbal commands, to cause the unified user interface to present a zoomed out view.

[0063] Unified User Interface—Vehicle Functionality User Interfaces

[0064] The unified user interface may additionally include icons associated with types of vehicle functionality. For example, the icons may enable selection of air conditioning functionality, music functionality, and so on as described herein. In contrast to the above-described example user interface, the unified user interface may ensure that the combined autonomous visualization and map information is not occluded. For example, if an end-user selects an air conditioning icon, a menu may be presented. Advantageously, the unified user interface may reduce a size associated with the combined autonomous visualization and map information. Additionally, the unified user interface may present the menu in a remaining portion of the unified user interface.

[0065] In some embodiments, the above-described dynamic sizing may be based on current contextual information. For example, if the user is navigating a complex series of streets, the unified user interface may increase a size associated with the combined depiction of the autonomous visualization and map information. In this way, the user may clearly view upcoming turns. Similarly, if there are upcoming hazards the unified user interface may increase a size of the map and depicted hazard to ensure the user is able to easily see the hazard.

[0066] Unified User Interface—Driver/Passenger Side Adjustments

[0067] For certain vehicles, such as trucks, a centralized display may be located greater than a threshold distance from the front driver and passenger seats. Thus, the driver may have easy access to a portion of the display proximate to the driver (e.g., a left side). In contrast, the driver may have more difficult access to a distal portion of the display (e.g., a right side). Similarly, the passenger may have easy access to the right side of the display and less access to the left side (in a car built for left-side drive). In some embodiments, the unified user interface may update based on whether the driver or passenger is interacting with the unified user interface.